



The Impact of Your Philanthropy

IMPACT DC

November 2020

Children's National Hospital and IMPACT DC pioneer new frontiers in pediatric asthma care thanks to the generous support of our donors. You help provide access to the clinical excellence, education, research and advocacy that families need and deserve. IMPACT DC drives critical work that helps us understand and treat one of the greatest health challenges our kids face – and you help make this possible. We are pleased to present an update on IMPACT DC's activities over the past year.



Children's National.

A New Era of Clinical Care

One of IMPACT DC's top priorities is to provide evidence-based, comprehensive, patient-centered asthma care to the community. This year, we continued to deliver excellent asthma care and care coordination to improve outcomes for each child we treat; increased access to our care model; and expanded our ability to address triggers in the home environment. We also improved upon our ability to identify, reduce risk factors and provide care to children with asthma using a novel population health asthma registry. Thanks to your support, our program witnessed additional transformation of our clinical care this past year.

A Successful Partnership with Mary's Center

Collaboration is at the core of IMPACT DC's growth in the Washington, D.C., area over the past 15 years. Our community service and healthcare partnerships allow us to reach and support more families. Last year, we partnered with Mary's Center, a federally qualified health center in D.C.'s Ward 4. Our aim was to treat children in the ward, largely from Spanish-speaking families, with high asthma morbidity. IMPACT DC provided Mary's Center clinicians and health educators with technical assistance, training, program support and care coordination. Through this, we established our first IMPACT DC clinic site outside of Children's National. The monthly IMPACT DC at Mary's Center clinic debuted on October 19, 2019. This new clinic site continues to see patients with a 61 percent show rate. The show rate is significantly higher than the 39 percent show rate at all IMPACT DC sites in fiscal year 2019.



The Transition to Telehealth

The arrival of the COVID-19 pandemic in March 2020 forced Children's National and IMPACT DC to adjust care and establish restrictions to ensure patient safety. It was essential to uphold our model's quality and find a creative solution to continue providing the same level of access to world-class asthma care. IMPACT DC transformed our multiple provider care model from an in-person clinic to a telehealth platform within a week. Families can now safely connect with asthma educators and a clinician in the comfort of their homes. Satisfaction with these visits has been high as evidenced by our telehealth patient surveys.

IMPACT DC has made more than 350 telehealth visits since we switched to telehealth appointments. Our patient show rate has seen a 12 percent increase. We will continue to offer families the online format option, as it likely increases care access. IMPACT DC also continues to hold a virtual Spanish-speaking clinic on Thursdays. We remain committed to offering high-quality health services to every family who seeks our care.

Our staff also is focused on making sure families have the resources they need to thrive during this difficult and uncertain time. Our family navigation team continues to connect hundreds of families to community resources such as food access, affordable housing programs and employment services.



“The care and compassion from in-person visits continued to show through the virtual visits ... I felt like we were actually in the hospital in terms of the care that we received from the doctors and other staff.”

Anonymous
from telehealth patient survey

Community Outreach, Education and Advocacy

IMPACT DC continues to expand beyond the hospital walls despite the challenges of COVID-19. Our community outreach, education and advocacy portfolio pivoted to a virtual model to provide webinars, trainings and professional development events. We have participated in a total of 48 outreach events – one-third of which were online – in 2020. This includes health fairs, school-based programs and other educational and advocacy events.

Virtual Trainings

IMPACT DC's virtual platform expanded our ability to educate and increase awareness of our program on a national level. We have successfully led and participated in 16 online outreach events since March 2020, reaching more than 380 professionals. Highlights include:



Virtual Asthma Home Visit Webinar: In April, IMPACT DC partnered with the Regional Asthma Management Prevention Program to share best practices around operationalizing virtual asthma home visits. Our team implemented a virtual asthma home visiting program as part of a Fannie Mae contract award prior to COVID-19. The webinar attracted more than 100 attendees across the country. It also led to several conversations with national multi-sector stakeholders interested in launching virtual home visiting programs.



Breathing Easy: Asthma Training for Caregivers of Young Children: We have led two online professional development trainings for early childhood education staff in partnership with D.C.'s Office of the State Superintendent of Education. The training curriculum focused on asthma pathophysiology, signs and symptoms of an asthma flare, and creating an asthma-friendly environment in a daycare setting.



Childhood Asthma, Practical Assessment and Management: IMPACT DC virtually hosted our annual noon resident conference for more than 50 Children's National pediatric residents. This two-part series included a lecture from Dr. Shilpa Patel, IMPACT DC's medical director, and Dr. Eduardo Fox, IMPACT DC's associate medical director. A workshop led by IMPACT DC asthma educators followed the lectures. Topics reviewed included National Heart, Lung, and Blood Institute asthma evidenced-based treatment guidelines, standards of care, and the IMPACT DC asthma education and care coordination model.

Regional Pediatric Asthma Conference

In October 2019, IMPACT DC hosted the Regional Pediatric Asthma Conference at Children's National. This in-depth, full-day conference gave 90 area providers the chance to learn about the parent perspective, new asthma management techniques and innovations in care delivery. The content focused on new management techniques, current asthma initiatives and new innovations. The panel, "Living with Asthma: The Parent Perspective," received positive feedback from the conference participants. Parents from the IMPACT DC Parent Advisory Council shared their experiences managing their children's asthma and navigating the healthcare system. Dr. Janet Phoenix, medical director of Breathe DC, and Robin Renner, construction director of Yachad, shared ways to reduce asthma triggers at home during the Home Remediation 101 presentation. Additionally, Drs. Ellie Hamburger and Janet Phoenix presented quality improvement methods used to improve asthma care.

DC Early Childhood Summit

In December 2019, IMPACT DC staff was among the more than 500 participants who attended the DC Early Childhood Summit. Our program hosted a breakout session to present our signature Breathing Easy professional development training. More than 60 early childhood education professionals attended our session.

Studies to Find the Right Treatments for Kids

The chance to help children control their asthma and allergies – and possibly cure them – makes studying these diseases exciting to Dr. William Sheehan. He uses his expertise as an allergist and clinical researcher at IMPACT DC to figure out the best way to treat each patient. “I do feel that we are making a difference in children’s lives,” he says.

Dr. Sheehan’s research centers on environmental exposures and asthma, and how both affect kids living in urban, low-income neighborhoods. He came to Children’s National from Boston Children’s Hospital in 2017 after collaborating with Dr. Stephen Teach. This link gave him insight to IMPACT DC’s approach to reaching families through care, research and community. The program’s involvement in the Inner City Asthma Consortium provided Dr. Sheehan with the chance to contribute to groundbreaking research.

In 2015, Dr. Teach published results of the Preventive Omalizumab or Step-Up Therapy for Fall Exacerbations (PROSE) study. Omalizumab is an effective but expensive asthma drug, often given year-round. The study found that treating kids with omalizumab in the fall season only helped reduce their asthma exacerbation throughout the year. This finding was promising, but the study pointed to the need to further determine which children benefit most from omalizumab. Dr. Sheehan began to meet that need by beginning a review of the data from PROSE and other related studies in 2018.

He found that children with the highest degrees of allergies and inflammation responded best to the medicine. This finding will help doctors target omalizumab to the right patients and avoid prescribing a costly treatment when it won’t be beneficial. “This cuts apart the idea that one size fits all,” says Dr. Sheehan. “Instead, it gets us closer to the idea of personalized medicine.” The *Journal of Allergy Clinical Immunology in Practice* published Dr. Sheehan’s paper on his findings in October 2020.

Efforts to prevent the development of asthma in young children are now a critical focus in asthma research. Dr. Sheehan is actively contributing to IMPACT DC’s participation in the PARK study, which uses omalizumab to treat 2 to 4 year olds with allergies that are at risk for asthma. The hope is that the drug will prevent the progression of allergies into asthma. Dr. Sheehan also is looking to find biomarkers that could help identify and target the trial to the children who would benefit from it most.

The importance of reaching families living in under-resourced neighborhoods and experiencing barriers to care is something Dr. Sheehan emphasizes. IMPACT DC and Children’s National, he notes, strives to be there for every child.



“ I have never seen a hospital and program so committed to helping the community. ”

Dr. William Sheehan
Allergist/Immunologist

Research to Make Change Happen

Research informs IMPACT DC's efforts to improve care and promote policies that help kids with asthma thrive. The support of our generous donors strengthens our work. In August 2020, your generosity helped us welcome Rachel H.F. Margolis, PhD, LICSW, as the program's first postdoctoral researcher.

Dr. Margolis's interest in research began when she joined the National Institutes of Health Clinical Center as a pediatric social worker. Here, she had the chance to conduct research as part of the center's clinical studies. The experience inspired Dr. Margolis to pursue her doctorate at the University of Maryland's School of Social Work. Her mentor's research spurred Dr. Margolis's focus on asthma and its prevalence in Black and Latinx communities.

"My passion for social justice marries well with asthma, where there are many health and healthcare inequities," says Dr. Margolis. Her dissertation centered on Black families with low incomes in Baltimore whose children have persistent and uncontrolled asthma. She explored the relationships among caregiver depressive symptoms, social support and child asthma outcomes over time. Dr. Margolis found that higher caregiver depressive symptoms were associated with decreased medication adherence over time. Living in a family where the household income was below \$20,000 was associated with poorer asthma control. Dr. Margolis's findings highlight the need to address a family's mental health and economic inequities so that they can manage their child's asthma successfully.

Dr. Margolis will work with IMPACT DC's Asthma Registry to analyze data, spot trends and identify new areas of research or intervention. She also is beginning a project that looks into the links between COVID-19 and asthma. Dr. Margolis's role will allow her to focus on the program's research, which helps ensure that all studies move forward.



“It was important for me to do something that affects the community that I live in. There are real opportunities at the clinical, research and policy level to make change happen for kids and families living with asthma.”

Dr. Rachel Margolis
Postdoctoral Research Fellow

Grants and Honors

Children's Health Board Grant

IMPACT DC received funding from the Children's Health Board to better understand barriers to asthma care and asthma education needs in school. Over the next year, our team will develop and conduct targeted phone interviews with both parents in our community and key education stakeholders. We will seek to understand how the school environment is affecting students' asthma care from a variety of perspectives. These findings will help us develop asthma trainings for parents, students, school nurses and staff at D.C. Public Schools in Wards 7 and 8. This project also will increase family access to IMPACT DC, and help improve asthma outcomes and address social determinants of health. We are excited to strengthen community partnerships and care coordination with D.C. Public Schools.

Population Health Improvement

IMPACT DC recognizes the power of understanding and treating the health outcomes of our whole community, including those without access to care. We are making strides to create a healthier District of Columbia through the implementation of community-based and data-driven population health initiatives.

Virtual Asthma Home Visits

In 2020, IMPACT DC piloted a unique telehealth asthma home visiting program under a two-year award from the Federal National Mortgage Association (Fannie Mae) Innovation Challenge. Our innovation allows us to offer health and housing expertise to families where they live. Families can schedule a telemedicine visit with a pediatrician and a housing remediation expert. This combined visit replaces in-person medical appointments and separate home trigger assessments. We witnessed tremendous success as a result of our pilot program alongside our partners, the Breathe Easy Home Visiting Program and Yachad. Our virtual home visit program has provided care for more than 40 families. The pilot is currently the sole provider of asthma home visits in the D.C. region as we navigate COVID-19 and social distancing. We have seen a high adoption of virtual home visiting services by both patients and providers. Visits show rates stand at greater than 70 percent, and families report high satisfaction on patient feedback surveys.

The goal of our pilot program is to use resources efficiently and effectively, reduce intervention time, and increase the stock of healthy, affordable housing in under-resourced neighborhoods. Over the next year, IMPACT DC will continue to provide virtual home visits as we evaluate the efficacy, impact and sustainability of this innovative model.



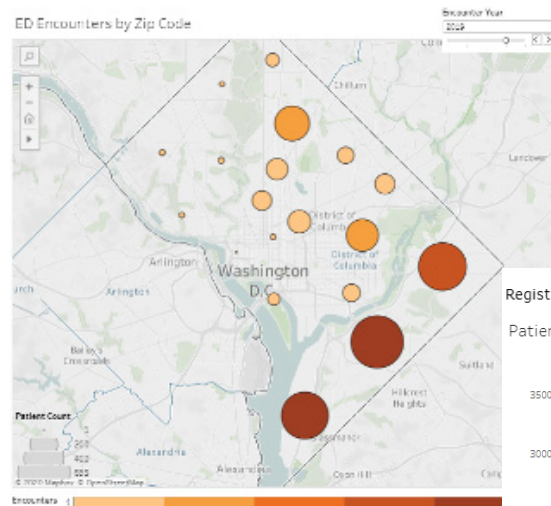
Asthma Registry

IMPACT DC continues to utilize the Children's National Health-E-Intent Asthma Registry thanks to continued funding from the D.C. Department of Health. The registry helps us improve both the analysis of population-level clinical data and pediatric asthma health outcomes in the region. It leverages electronic medical records at Children's National to identify more than 16,000 children with asthma in D.C. This one-of-a-kind population health tool allows us to monitor patient-level data. Importantly, we can view real-time trends in the demographics, healthcare utilization and care received for more than 85 percent of the children with asthma in the city.

In the last year, our team successfully implemented four initiatives aimed at improving asthma outcomes:

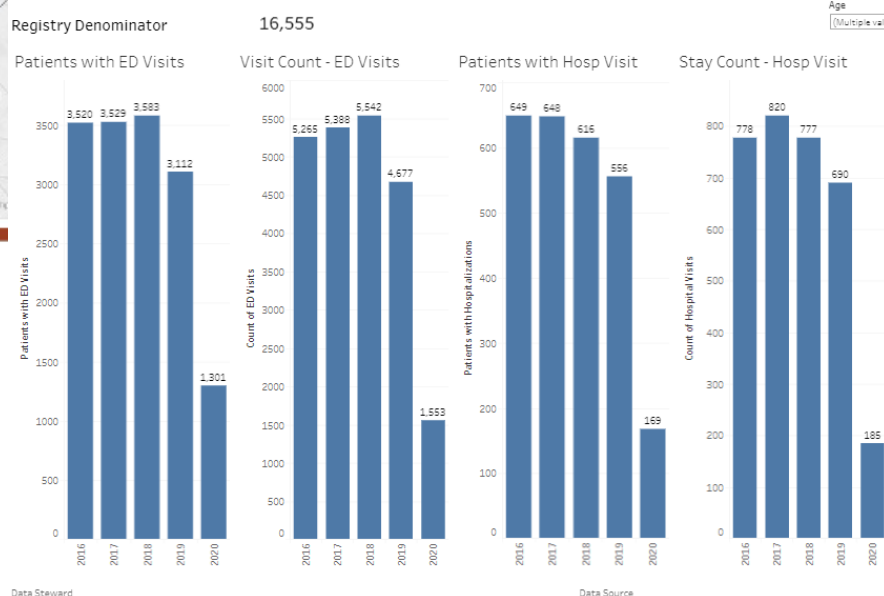
- Improving care coordination and care delivery by school nurses
- Expanding care coordination for the "high-risk asthma cohort"
- Reducing pediatric asthma emergency department and hospitalization use among children within the asthma registry through the development of a seasonal predictive morbidity model
- Launching a regional pediatric asthma conference in D.C.

In the coming year, we plan to grow our observations through a robust data-sharing partnership with Unity Health Care. This collaboration will incorporate Unity Health Care's pediatric data into the existing registry. It will enhance our ability to analyze population-level clinical data and implement evidence-based continuous quality improvement projects to improve outcomes for kids in D.C.



The Asthma Registry displays multiple population-level data visualizations, including asthma prevalence in Washington, D.C. This map (left) displays the number of patients per residential zip code who experienced asthma-related emergency department visits in 2019.

Our main Asthma Registry dashboard offers dynamic institution-wide healthcare utilization data on asthma-related emergency department visits and hospitalization. Both have steadily decreased over the past four years.



Research – Inner City Asthma Consortium

The PARK Study

The PARK study is a multicenter study funded by the National Institute for Allergy and Infectious Diseases (NIAID) of the National Institutes of Health (NIH) to learn more about preventing wheezing children from developing asthma. The purpose of the study is to see if a medication, omalizumab (Xolair), can prevent children from developing asthma or make their symptoms less severe. The PARK research team has contacted over 300 families and more than 100 participants have been enrolled nationwide.

The ORBEX Study

We continue recruitment for the ORBEX study, a five-year, \$2.8-million NIH grant supporting a multicenter study assessing the efficacy, safety and tolerability of Oral Bacterial Extract for the prevention of wheezing lower respiratory tract illness. The research team has contacted over 2,000 families. We suspended recruitment in March 2020 due to COVID-19, but recently resumed our activities with study visit amendments and hospital precautions for all in-person visits.

The Inner City Asthma Consortium

For 15 years, IMPACT DC has participated as a clinical site for this consortium funded by NIAID. New highlights from these studies include:

- MUPPITS-2 is a multicenter, double-blind randomized trial of mepolizumab in children with asthma and a high number of blood eosinophils. The primary aim is to see if mepolizumab can reduce asthma exacerbations in these kids. In March 2020, we completed enrollment with 43 active participants from Children's National and 290 total randomized participants from all sites.
- CRITICAL is a multicenter, double-blind randomized trial of German cockroach allergenic extract administered by subcutaneous injection. The trial assesses if this treatment can improve asthma severity in children with well-controlled asthma.
- RACR2 is a registry study with the primary goal to create a database of potential recruits for current and future consortium research studies. We successfully used the study to recruit patients for CRITICAL and MUPPITS-2.

2020 At a Glance



1,001

new patients
treated



350+

patients seen via
telehealth



48

outreach events
attended



400+

health
professionals
trained



200+

early childhood
professionals
trained

Our Gratitude

Your generosity continues a 150-year-old legacy of community support for children and families. Children's National and IMPACT DC strive to create a healthier city for families by advancing asthma care through research, education and advocacy. Our ability to reach families is due to your commitment to them and to their success. Thank you for empowering innovative care that helps set the stage for the next 150 years of pediatric medicine.